

This listing of claims will replace the prior version of claims in the application:

Listing of Claims:

Claim 1 (currently amended): An isolated nucleic acid ~~and the degenerate sequences thereof, which encodes~~ encoding human $\alpha 1$ chain collagen protein, comprising the nucleotide sequence set forth in ~~SEQ ID NO. 5~~ SEQ ID NO: 5.

Claims 2-5 (canceled)

Claims 6 (withdrawn): A human $\alpha 1$ chain collagen protein having the amino acid sequence set forth in SEQ ID NO. 1.

Claims 7 (withdrawn): The human $\alpha 1$ chain collagen protein as claimed in claim 6, wherein the protein is encoded by an isolated nucleic acid and the degenerate sequence thereof, said isolated nucleic acid and the degenerate sequence thereof comprise the nucleotide sequence set forth in SEQ ID NO. 5.

Claims 8 (withdrawn): The human $\alpha 1$ chain collagen protein as claimed in claim 7, comprising:

- (i) von Willebrand factor A domain set forth in SEQ ID NO. 2;
- (ii) thrombospondin N-terminal-like domain set forth in SEQ ID NO. 3; and
- (iii) collagenous domain set forth in SEQ ID NO. 4.

Claim 9 (original): A recombinant vector comprising the nucleic acid of claim 1 and a regulatory sequence.

Claim 10 (original): The recombinant vector as claimed in claim 9, wherein the regulatory sequence comprises an operatively linked promoter.

Claim 11 (original): The recombinant vector as claimed in claim 9, wherein the recombinant vector is designated Bluescript KS(+)/*E. coli* DH5 α (*hCOLA1*) and deposited at the Culture Collection and Research Center (Hsinchu, Taiwan) and assigned accession number CCRC 940331.

Claim 12 (original): A method for producing human $\alpha 1$ chain collagen protein, comprising the steps of:

- (a) transforming or transfecting a host cell with the recombinant vector of claim 9;
- (b) culturing said transformed or transfected cell under the conditions sufficient for expression of the human $\alpha 1$ chain collagen protein; and
- (c) recovering and purifying the human $\alpha 1$ chain collagen protein.

Claim 13 (currently amended): The method as claimed in claim 12, wherein the host cell is ~~selected from the group consisting of~~ a prokaryotic cell or and a eukaryotic cell.

Claim 14 (currently amended): The method as claimed in claim 13, wherein the prokaryotic cell ~~comprises~~ is *Escherichia coli*.

Claim 15 (currently amended): The method as claimed in claim 13, wherein the eukaryotic cell ~~comprises~~ is a mammalian cell.

Claim 16 (original): The method as claimed in claim 12, wherein the recovering and purifying step is conducted by column chromatography.

Claims 17-21 (canceled)